## IN THE CLAIMS

1          1.      [currently amended] A method ~~(750)~~ for processing data packets in a

2    gateway element, said method comprising the steps of:

3              - ~~comparing (751) a data packet to~~ providing screening information

4          comprising a set of rules, ~~and~~

5    - ~~processing (755) a data packet according to a rule belonging to the set of rules, the~~

6    ~~header information of said data packet matching the header information of said rule,~~

7    ~~characterized in that~~

8          - said screening information ~~is~~ being hierarchically structured so that it

9          comprises a first rule, which specifies first header information, and a subset of

10          rules relating to said first rule, ~~and in that~~

11          - ~~in said step of~~ comparing a data packet, ~~said data packet is compared~~

12    ~~(754, 756)~~ to said subset of rules only if the header information of the data packet

13          matches the header information of said ~~the~~ first rule. ~~and~~

14          <u>- processing a data packet according to a rule belonging to the set of rules,</u>

15          <u>the header information of said data packet matching the header information of said</u>

16          <u>rule.</u>


1          2. [currently amended] A method ~~according to claim 1, characterized in that~~ <u>for</u>

2    <u>processing data packets in a gateway element, said method comprising steps of:</u>

3          <u>- providing screening information comprising a set of rules, said screening</u>

4          <u>information being hierarchically structured so that it comprises a first rule, which</u>

5          <u>specifies first header information, and a subset of rules relating to said first rule,</u>

6          - said subset of rules ~~comprises~~ comprising a second rule, which specifies

7          second header information, and a second subset of rules, said second subset of

8 rules relating to said second rule, ~~and in that~~

9  <u>- processing a data packet according to a rule belonging to the set of rules,</u>

10 <u>the header information of said data packet matching the header information of said</u>

11 <u>rule.</u>

12  - in said step of comparing a data packet, said data packet is compared to

13 said second subset of rules only, if the header information or the data packet

14 matches the header information of the second rule.


1  3. [currently amended] A method according to claim 1, ~~characterized in that~~

2 <u>wherein</u>

3  - said set of rules is an ordered sequence of rules,

4  - said subset of rules is an ordered sub-sequence of said ordered

5 sequence of rules, and

6  - in said step of comparing a data packet, said data packet is compared to

7 the rules in the order defined by the ordered sequence.


1  4. [currently amended] A method according to claim 1, ~~characterized in that~~

2 <u>wherein</u> for said subset of rules, an entity which is authorized to modify said subset, is

3 specified.


1  5. [currently amended] A method according to claim 1, ~~characterized in that~~

2 <u>wherein</u> at least one rule belonging to said subset of rules comprises a generic

3 information portion, said generic information portion to be replaced with second

4 information before a data packet is compared to said at least one rule.

1    6.   [currently amended]  A method according to claim 1, charact rized-in-that

2    wherein said screening information comprises a first part, which is modifiable by an

3    entity authorized to configure said gateway element, and a second part, which is

4    modifiable by an entity specifically authorized to modify said second part.


1    7.   [currently amended]  A gateway element (80) comprising

2            - means (801) for storing screening information and

3            - means (802) for processing data packets, said processing involving

4    comparison of a data packet header to header information specified in said

5    screening information, characterized in that said means (802) for processing data

6    packets are arranged to compare by comparing header information of a data packet

7    to screening information, said screening information comprising a first rule, which

8    specifies first header information, and a subset of rules relating to said first rule,

9    and arranged to compare a and wherein said comparing function comprises

10   comparing header information in said data packet to said first rule, and if said

11   header information in said data packet matches said first header information in said

12   first rule, comparing said data packet to said subset of rules only if the header

13   information of the data packet matches the header information of the first rule.


1    8.   [currently amended] A gateway element according to claim 7, further comprising:

2    characterized in that it further comprises

3            - means (803) for detecting generic information portions in said screening

4    information,

5            - means (803) for receiving second information, and

6            - means (803) for replacing the generic information portion in said

7       screening information with said second information.

1       9. [currently amended] A gateway element according to claim 8, ~~characterized in that it~~

2       further <u>comprising:</u> ~~comprises~~

3             - means ~~(804)~~ for preventing modification of at least one rule belonging said

4       information.

1       10. [currently amended] A gateway element according to claim 7, ~~characterized in that~~

2       ~~it~~ further <u>comprising:</u> ~~comprises~~

3             - means ~~(805)~~ for receiving at least part of said screening information from

4       a database entity.

1       11. [currently amended] A gateway element according to claim 10, ~~characterized in~~

2       ~~that it~~ further <u>comprising:</u> ~~comprises~~

3             - means ~~(806)~~ for fetching at least part of said screening information from

4       said database entity, said means for fetching being arranged to initiate fetching as

5       part of configuration of said gateway element.

1       12. [currently amended] An arrangement ~~(85)~~ ~~comprising~~ <u>including</u> at least one gateway

2       element ~~(80)~~ and a database entity ~~(81)~~, said at least one gateway element comprising

3             - means ~~(801)~~ for storing information for screening data packets and<u>,</u>

4             - means ~~(802)~~ for processing data packets, said processing involving

5       comparison of a data packet header to header information specified in said

6       screening information,

7       ~~characterized in that~~

8      - said database entity ~~comprises~~ including means (82) for providing

9      information for screening data packets,

10      - said at least one gateway element ~~further comprises~~ including means

11      (805) for receiving at least part of said information for screening data packets from

12      said database entity,

13      and said processing means ~~(802) for processing data packets are~~

14      ~~arranged~~ being configured to compare header information of a data packet to

15      screening information comprising a first rule, which specifies first header

16      information, and a subset of rules relating to said first rule, and ~~arranged~~ configured

17      to compare a data packet to said subset of rules only if the header information of

18      the data packet matches the header information of the first rule.


1      13.    [currently amended]  ~~A computer program comprising program code for performing~~

2      ~~all the steps of Claim 1 when said program is run on a computer.~~  A computer-readable

3      medium having computer-executable instructions stored thereon for controlling a

4      computer to perform the following steps:

5      providing screening information comprising a set of rules, said screening

6      information being heirarchically structured so that it comprises a first rule, which

7      specifies first header information, and a subset of rules relating to said first rule;

8      comparing a data packet to said subset of rules only if the header

9      information of the data packet matches the header information of the first rule; and

10      processing a data packet according to a rule belonging to the set of rules,

11      the header information of said data packet matching the header information of said

12      rule.

14. [currently amended] A computer program product comprising program code means stored on a computer readable medium for performing, ~~the method of Claim 1~~ when said program product is run on a computer, the steps of:

    providing screening information comprising a set of rules, said screening information being heirarchically structured so that it comprises a first rule, which specifies first header information, and a subset of rules relating to said first rule;

    comparing a data packet to said subset of rules only if the header information of the data packet matches the header information of the first rule; and

    processing a data packet according to a rule belonging to the set of rules, the header information of said data packet matching the header information of said rule.

15. [currently amended] A data structure ~~(40, 60, 64, 66)~~ comprising screening information, ~~characterized in that~~ wherein said screening information is hierarchically structured so that it comprises a first rule ~~(401)~~, which specifies first header information, and a subset of rules ~~(402, 403)~~ relating to said first rule, said first header information being common to said rules belonging to said subset of rules.

16. [currently amended] A data structure (42) according to claim 15, **characterized** in that said subset of rules comprises a second rule (421), which specifies second header information, and a second subset of rules (422, 423), said second subset of rules relating to said second rule, said second header information being common to said rules belonging to said second subset of rules.

17. [new] A method for processing data packets in a gateway element, said method

2 comprising the steps of:

3   - providing screening information comprising a set of rules, said screening

4  information being hierarchically structured so that it comprises a first rule, which

5  specifies first header information, and a subset of rules relating to said first rule,

6  each rule in said subset of rules specifying second header information including a

7  common first portion that matches to said first header information, and a second

8  portion that varies from one to another in said subset of rules;

9   - comparing a data packet to said subset of rules only if the header

10  information of the data packet matches the header information of said first rule; and

11   - processing a data packet according to a rule belonging to said subset of

12  rules only if said header information of said data packet matches both said first and

13  second portion of the header information of said rule.